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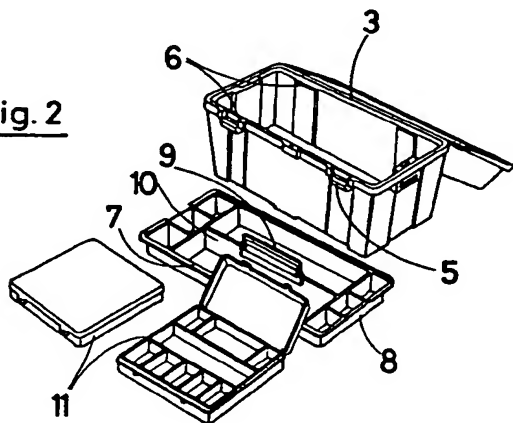
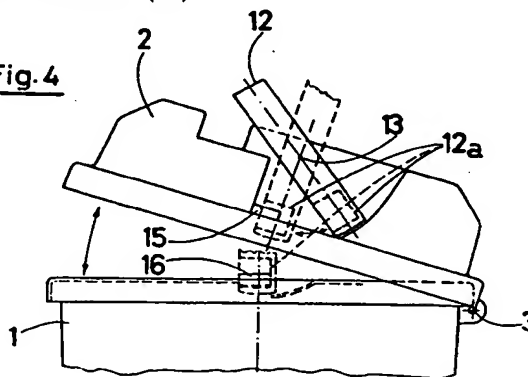
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**D-50389 Wesseling (DE)**(54) **New tool-box.**

(57) A new tool-box. The ends of the handle (12) have undercuts (12a) to house the bodies (15) and (16) of the cover (2) and box (1) together, causing these parts to be interlocked, to allow the closed box to be carried without having to use the conventional locks (4) and (5).

A top inner tray (8) is closed by two twin cases (11) that allow the inner box space to be fully used and prevent the inner objects from being jumbled.

The box can be used for storing tools, and has a handle (12) for manual carriage and holdfasts (18) for a chest belt (19).

**Fig. 2****Fig. 4****EP 0 668 129 A1**

The present invention relates to a new tool-box.

The invention conceives a new box of the kind for keeping tools in, having a number of peculiarities that make it conveniently practical as compared with embodiments that are now available in the market and designed for like purposes.

The box is of the kind comprising two main parts, one of which conforms the container or box as such, and the other part embodies the cover, associated to each other by means of a hinged connection running along one of the longitudinal edges, the opposite parallel edge carrying conventional locking means.

The most outstanding advantages the object of this invention entails, are as set out below, in addition to such others as are inherent in the layout, structure and conformation thereof.

1- Making the most of the inner box space by providing an inner tray, closed at the top by the presence of exchangeable cases, thereby to allow the box to be tipped without risking having the objects inside being jumbled or upset.

2- The handle is fitted to be housed inside a groove on the cover and thus when it is placed in a functional position for carriage, its ends shall fit into a housing provided in the box, and the cover and the box shall be held together, and the unit may be lifted even if the locking means connecting both parts, viz. the box and the cover, are not in the operative position.

The handle pivots on a virtual axis lengthways to the cover, established by pivots located on the middle of the sides of the handle which fit into holes on the cover, thereby allowing, due to the coincident "cross", for the two handle open and closed positions, at 90° to one another.

3- On the side and at the top of the box two parts are fitted to which the ends of a belt allowing the box to be carried across one's chest can be fastened.

In order to make the explanation easier, attached hereto is a sheet of drawings illustrating an embodiment that is cited only as an example.

In the drawings:

Figure 1 is a perspective view with the handle in the raised carriage position.

Figure 2 is a perspective view of the box and the various inner containers thereof making up a tray and exchangeable cases.

Figure 3 illustrates a perspective close view of the handle retracted into the groove on the cover.

Figure 4 is a schematic side view of the box, showing the layout that allows the box to be raised closed by means of the handle, even if the locking means stay open.

Figure 5 shows the box equipped with a chest belt attached to the auxiliary fastening parts.

With reference to the figures, the embodiment therein shows a new tool-box of the kind comprising two moulded material parts, generally numbered -1- and -2-, respectively making up the box or container body as such and the cover body, connected through one of their longitudinal sides -3- through hinges and their opposite end carrying traditional locking means -4- and -5-.

The box -1- is fitted on its inner mouth portion with ledges -6- for the perimetric edge -7- of a tray -8- which shall on being coupled upon the said ledges have a mouth coplanar with the mouth of the box -1-. This tray -8- has inner compartments, a handle -9- that can be retracted into a groove provided on a central wall -10-. The tray -8- supports two cases -11- closing the tray mouth and which prevent the contents from being jumbled with the cover -2- in the closed position, even if the box is tipped.

The box has a handle -12- that pivots on the shorter sides of the cover -2- upon a virtual axis -13- defined by pivots provided on the shorter sides of the handle, which fit into holes on such cover, and which allows due to the coincident cross for the two 90° open and closed positions.

A groove -14- on the cover houses the handle -12- when collapsed.

The said handle has two undercuts -12a- at its ends in which a pair of V-shaped bodies -15- and -16- are housed, respectively provided on the cover and box, the latter being automatically interlocked when the handle -12- takes up an upright position of use, which allows the box as a whole to be carried even if the locking means -4- and -5- are not in the working position.

The shorter sides of the box carry trapezium-shaped guides -17- that allow buckle-shaped parts -18- to which the ends of a chest belt -19- are fitted, to be fastened.

## Claims

1. A new tool-box, of the kind comprising two moulded material parts respectively conforming the container and the cover, connected at one of their sides through hinges and their opposite side carrying conventional locking means, essentially characterised in that the inner mouth portion of the box has projections (6) defining a horizontal plane supporting the external perimetric edge (7) of the mouth of a tray (8), which opening is occluded by the presence of two twin and removable cases (11) which when the cover is in the closed position prevent the contents of the box from being jumbled even if the box is tipped.

2. A new tool-box, as in claim 1, characterised in that the box has a U-shaped handle (12) with an elongate base, pivoting at the shorter sides of the cover (2), on a virtual axis (13), defined by pivots provided at the middle of the shorter sides of the handle, which fit into holes on such cover, allowing for two end handle positions at 90° to each other, one collapsed and housed inside a groove (14) on the cover, and another functional raised position, in which undercuts (12a) on the ends of the handle house two bodies (15) and (16) of the cover and box, causing these parts (1) and (2) to be interlocked, allowing the closed box as a whole to be carried without having to use the conventional locks (4) and (5).
3. A new tool-box, as in claims 1 and 2, characterised in that the shorter sides of the box body have two trapezium-shaped recesses (17), acting as a guide for respective parts (18) that can be snapped into the upper shorter base of the said trapezia, the said parts being slotted lengthways for a chest belt to be attached.

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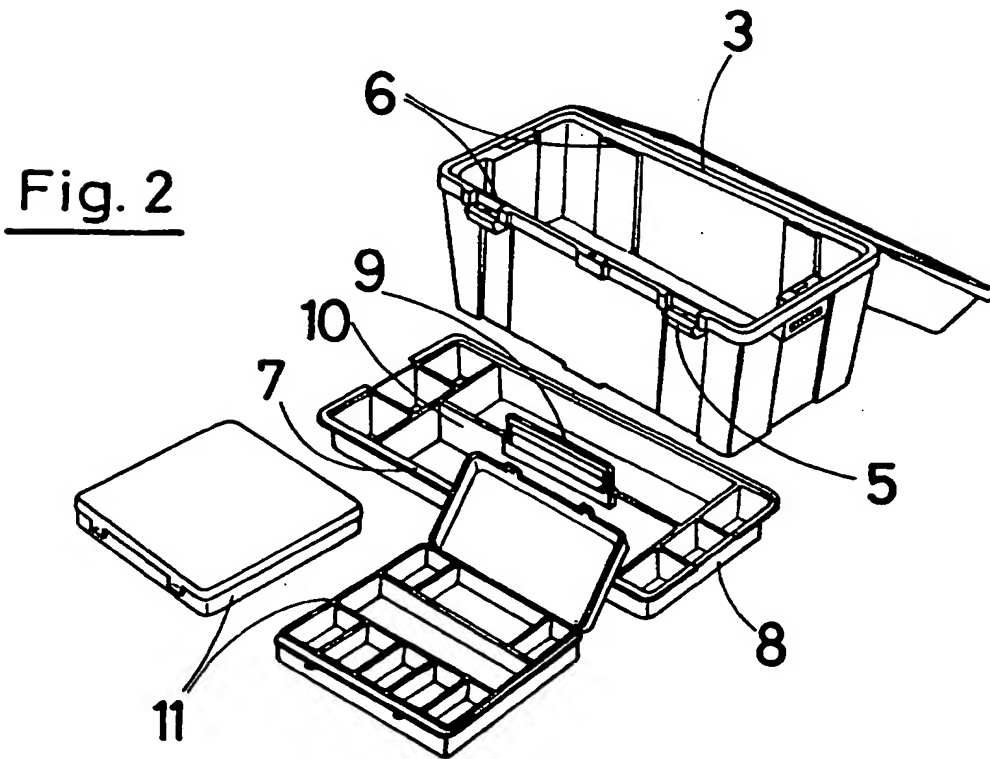
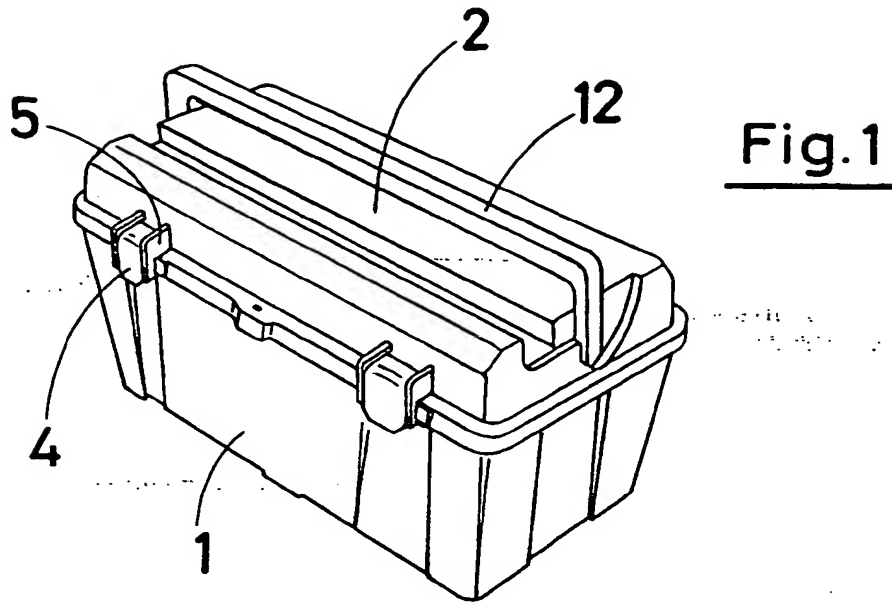


Fig. 3

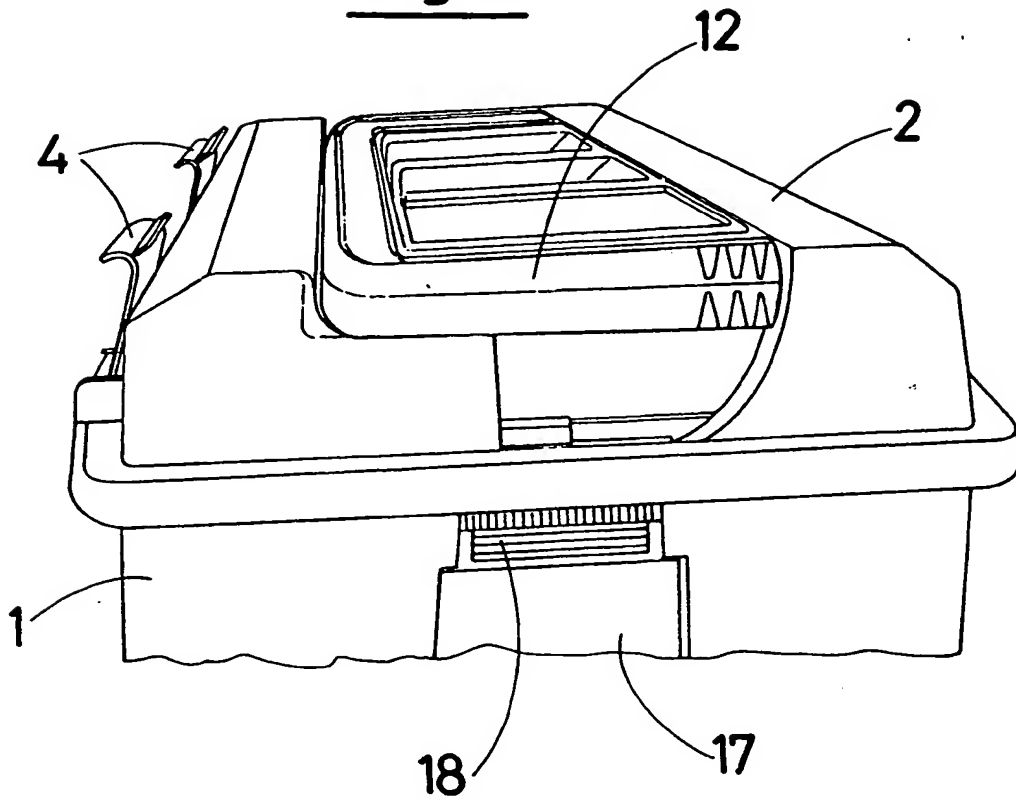
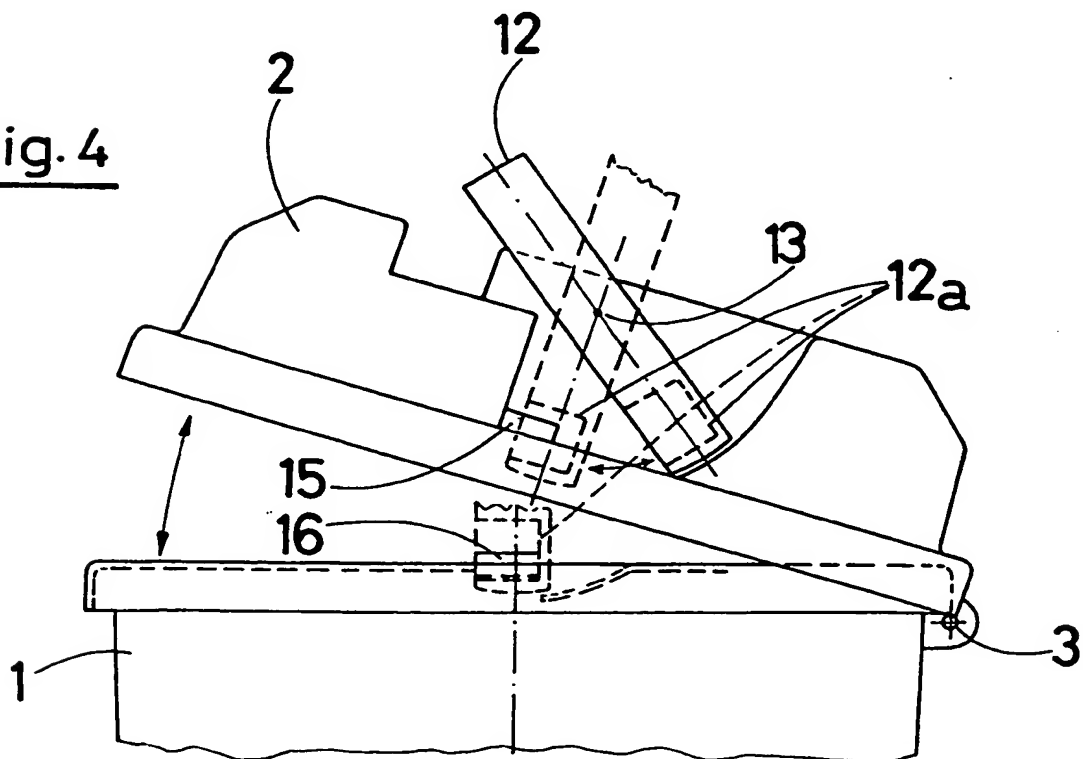


Fig. 4



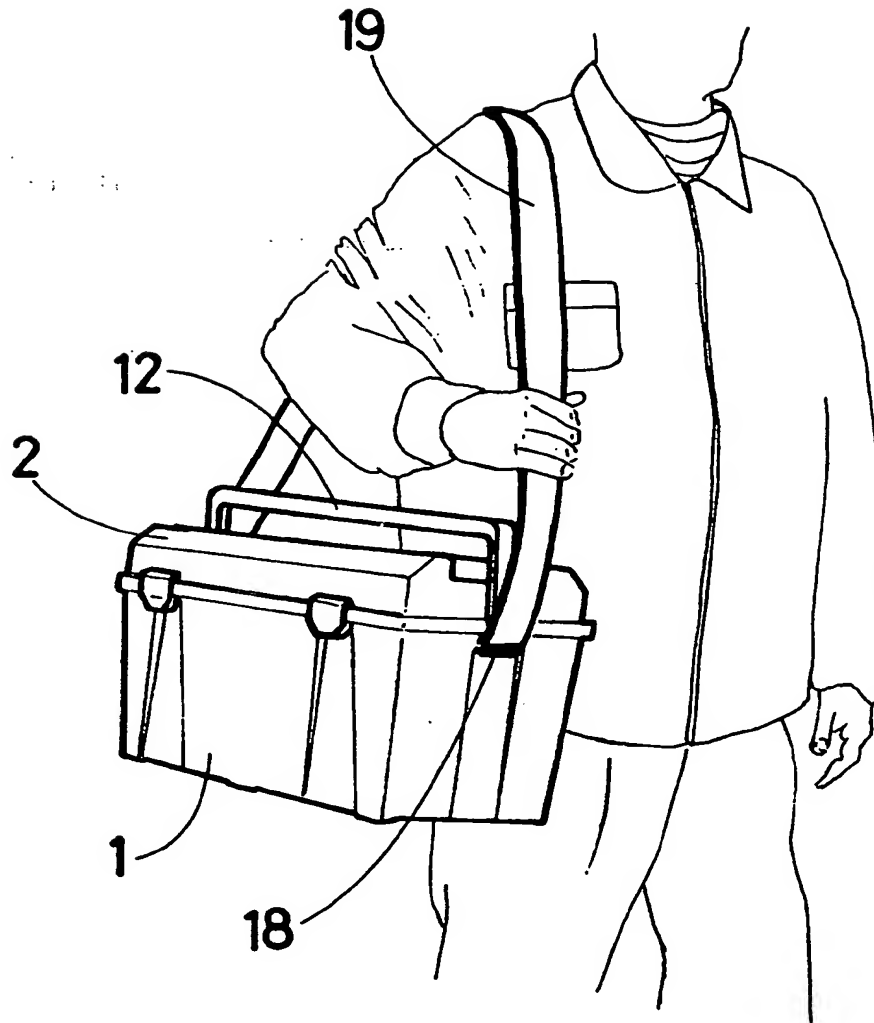


Fig. 5



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## EUROPEAN SEARCH REPORT

Application Number  
EP 94 50 0058

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X Y	US-A-5 244 095 (DE VOE) * column 3, line 33-52 * * column 5, line 21-31 * * column 5, line 65-68; figures 1-4, 19 * ---	1 2	B25H3/02 B25H3/06 B65D25/32
Y	US-A-2 361 079 (BERRY) * page 1, line 43 - page 2, line 12; figures 1-4 * ---	2	
A	US-A-2 383 058 (HANSON) * the whole document * ---	1,2	
A	US-A-5 169 018 (FIORE) * the whole document * ---	1	
A	DE-U-89 11 266 (E.DAMBERG GROUP A/S) * page 9; figures 1,2 * ---	2	
A	US-A-5 011 013 (MEISNER ET AL) * column 6, line 41-43 * * column 7, line 45-55; figure 8 * ---	3	
A	US-A-3 628 843 (WYNNE ET AL) ---		TECHNICAL FIELDS SEARCHED (Int.Cl.6) B25H B65D
A	EP-A-0 554 185 (FACOM) ---		
A	US-A-4 351 448 (INGERSOLL ET AL) ---		
A	DE-U-86 10 225 (THE DECOR CORP.) ---		
A	DATABASE WPI Week 8751, Derwent Publications Ltd., London, GB; AN 87-362229 & US-A-4 711 383 * abstract * -----		
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 10 June 1994	Examiner Petersson, B
<b>CATEGORY OF CITED DOCUMENTS</b> X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ----- & : member of the same patent family, corresponding document			

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